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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,957	10/26/2001	Chris Ryan	000244	7049
23696 7590 11/27/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER PHILLIPS, HASSAN A	
			ART UNIT 2151	PAPER NUMBER
			NOTIFICATION DATE 11/27/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/032,957

Applicant(s)

RYAN, CHRIS

Examiner

Hassan Phillips

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to communications filed September 17, 2007.

#### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: the claim language is unclear. The phrase "may be" in line 8 of the claim makes it unclear whether any of the limitations following the phrase are part of the claimed invention. Examiner suggests changing the phrase to "is". Appropriate correction is required.

#### ***Response to Arguments***

3. Applicant's arguments, see pg. 5, "Discussion of Kahn", filed September 17, 2007, with respect to the rejections of claims 1-3 under 35 U.S.C. 103 have been fully considered and are persuasive. The rejection of claims 1-3 under 35 U.S.C. 103 as being obvious over Khan has been withdrawn.

4. Applicant's arguments, see pg. 5, "Discussion of Guterman and Nguyen" filed September 17, 2007 have been fully considered but they are not persuasive. Applicant argued:

- a) Guterman fails to describe separate clocks used by the general computing system and the modem computing system for accessing shared memory and fails to describe the general computing system selectively activating any clock to a shared memory module;

- b) Nguyen fails to teach or suggest separate clock signals used by separate subsystems;
- c) Neither Guterman nor Nguyen describe a first computing subsystem loading binary images from nonvolatile memory to shared memory that are accessed and used by a second computing subsystem to configure it;
- d) Guterman fails to describe nonvolatile memory;
- e) Neither Guterman nor Nguyen describe any binary image being transferred from nonvolatile memory to shared memory for use by a modem computing subsystem;
- f) Nguyen fails to describe the nonvolatile memory as containing any information that can be used to configure any subsystem other than the one with which it is associated;
- g) Nguyen fails to teach or even suggest that any information stored in the nonvolatile memories is ever transferred to shared memory; and,
- h) Nguyen fails to teach or suggest how any information coupled via an instruction bus can be transferred as a binary image to shared memory.

Examiner respectfully disagrees with applicant.

5. With regards to a) and b), examiner has acknowledged in previous actions that Guterman fails to expressly describe separate clocks used by the general computing system and the modem computing system for accessing shared memory and fails to describe the general computing system selectively activating any clock to a

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shared memory module, nevertheless as indicated in previous actions, examiner maintains the teachings of Nguyen make up for the lack of teachings in Guterman. Further, examiner submits Nguyen teaches separate clock signals used by separate subsystems at least where Nguyen teaches a clock signal (i.e. SHARED CLK) used by subsystem A and subsystem B, (col. 7, lines 16-21, also see Fig. 3), and where Nguyen suggests a clock signal (i.e. EXT CLK) is used by a subsystem (i.e. host processor) external from subsystems A and B, (col. 5, lines 13, 14, col. 6, lines 51-53, also see Fig. 3).

6. With regards to c) through h), examiner has acknowledged in previous actions that Guterman fails to expressly disclose nonvolatile memory, nevertheless as indicated in previous actions, examiner maintains the teachings of Nguyen make up for the lack of teachings in Guterman. Further, examiner submits the teachings of Nguyen suggest loading binary images from nonvolatile memory to shared memory that are accessed and used by a second computing subsystem to configure it, at least where Nguyen teaches non-volatile memories storing boot-up software for initializing the subsystems of a DSP, (col. 4, lines 6-9), allowing an external subsystem (i.e. the host processor) to access **all** memory internal to the DSP, (col. 5, lines 13, 14), and providing the software to be executed by a processor core of the DSP subsystems by the host processor, the host processor writing the software to shared memory, (col. 5, lines 24-27).

7. Furthermore, examiner has given broadest reasonable interpretation to the claim language. It is also the examiner's position that applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of applicant's disclosed invention in a manner that distinguishes over the prior art. Failure for applicant to significantly narrow definition/scope of the claims implies the applicant intends broad interpretation be given to the claims. The examiner has interpreted the claims with scope parallel to the applicant in the response and suggests applicant define the claimed invention more clearly and distinctly. Accordingly the references supplied by the examiner in the previous office action covers the claimed limitations. The rejections are thus sustained. Applicant is requested to review the prior art of record for further consideration.

8. Claims 1-9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Guterman, U.S. Patent Pub. No. 2003/0008690, in view of Nguyen.

9. In considering claim 1, Guterman discloses a system for partitioning and loading data in a low-powered communication device, the system comprising: a general computing subsystem (24), (page 1, paragraph 15); a modem computing subsystem (12), (page 1, paragraph 15); and a shared memory module for receiving a binary data, wherein the shared memory module may be accessed by the general computing subsystem and the modem computing subsystem independently, (page 1, paragraph 16).

Although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: a first clock, a second clock, the general computing subsystem accessing the shared memory module using the first clock, and the general computing subsystem selectively activating the second clock to the shared memory module to permit use of the shared memory module by the modem computing subsystem.

Nevertheless, in a similar field of endeavor Nguyen teaches a first clock (EXT CLK) (see. Fig. 3), a second clock (SHARED CLK) (see Fig. 3), a general computing subsystem (i.e. external host processor) accessing a shared memory module using the first clock (col. 5, lines 13-27), and the general computing subsystem selectively activating the clock to a shared memory module (132) to permit use of the shared memory module by an alternate computing subsystem (110, 120), (col. 6, lines 48-53, and col. 7, lines 29-33). It would have been readily apparent to one of ordinary skill in the art that the teachings of Nguyen provide a means for the general computing subsystem to selectively activate the clock to the shared memory module to permit use of the shared memory module by the alternate computing subsystem (110, 120). This would occur in single DSP systems, and in cases where there was no power supplied to the external clock.

Thus, if not implicit in the teachings of Guterman, given the teachings of Nguyen it would have been obvious to one of ordinary skill in the art to modify the teachings of Guterman to disclose a first clock, a second clock, the general computing subsystem accessing the shared memory module using the first clock, and the general computing

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subsystem selectively activating the second clock to the shared memory module to permit use of the shared memory module by the modem computing subsystem. This would have advantageously provided a power saving system by preserving the use of the shared memory clock until needed by one of the computing subsystems (Nguyen, col. 1, lines 19-24, and line 49-col. 2, line 9).

10. In considering claim 2, Guterman discloses the modem computing subsystem controls data processing in accordance with wireless communication protocols, (page 1, paragraph 15).

11. In considering claim 3, Guterman discloses the modem computing subsystem further comprising a mobile station wireless modem, (page 1, paragraph 15).

12. In considering claim 4, although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: the general computing subsystem further comprising a nonvolatile memory that stores information for generating the data.

Nevertheless, general computing subsystems comprising nonvolatile memory that stores information for generating data was well known in the art at the time of the present invention. Nguyen further discloses the general computing subsystems comprising nonvolatile memory (12, 22) that store information for generating data, (col. 4, lines 6-9).



Thus, if not implicit in the teachings of Guterman, given the teachings of Nguyen it would have been obvious to one of ordinary skill in the art to modify the teachings of Guterman to disclose the general computing subsystem further comprising a nonvolatile memory that stores information for generating the data. This would have advantageously provided a memory that could be used to store information to "boot up" or initialize the subsystems, (Nguyen, col. 4, lines 6-9).

13. In considering claim 5, it is implicit in the teachings of Guterman that the general computing subsystem loads the data into the shared memory module, (page 1, paragraph 16).

14. In considering claim 6, the combined teachings of Guterman and Nguyen provide a means for the general computing subsystem to generate the data from compressed information stored in the nonvolatile memory, (Guterman, page 1, paragraph 16, Nguyen, col. 4, lines 6-9). One of ordinary skill in the art would combine the teachings of Guterman with Nguyen for reasons previously indicated.

15. In considering claim 7, Guterman discloses a portable wireless communication device, the device comprising: a memory (14), (page 1, paragraph 16); a general computing subsystem (24) having access to the memory, (page 1, paragraph 15); a modem computing subsystem (12), (page 1, paragraph 15); and a first shared memory module for receiving a binary data, wherein the shared memory module may

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be accessed by the general computing subsystem and the modem computing subsystem independently, (page 1, paragraph 16).

Although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: the memory being nonvolatile, and the first shared memory module being selectively enabled and disabled by the general computing subsystem, and wherein a first binary image is loaded in the first shared memory module from the nonvolatile memory by the general computing subsystem when selectively enabled, and the first binary image loaded in the first shared memory module being accessed by the modem computing system to configure the modem computing subsystem.

Nevertheless, in a similar field of endeavor Nguyen discloses a nonvolatile memory (12, 22), (col. 4, lines 6-9), and a general computing subsystem (i.e. external host processor) having access to the nonvolatile memory, (col. 5, lines 13-27). Nguyen also teaches the general computing subsystem selectively enabling and disabling an alternate computing subsystem (110, 120), (col. 6, lines 48-53, and col. 7, lines 29-33). The teachings of Nguyen further imply a first binary image may be loaded in the first shared memory module from the nonvolatile memory by the general computing subsystem when selectively enabled, and the first binary image loaded in the first shared memory module is accessed by the alternate computing system to configure the alternate computing subsystem, (col. 4, lines 6-9, and lines 23-26, and col. 5, lines 13-27).

Thus, if not implicit in the teachings of Guterman, given the teachings of Nguyen it would have been obvious to one of ordinary skill in the art to modify the teachings of Guterman to disclose the memory being nonvolatile, and the first shared memory module being selectively enabled and disabled by the general computing subsystem, and wherein a first binary image is loaded in the first shared memory module from the nonvolatile memory by the general computing subsystem when selectively enabled, and the first binary image loaded in the first shared memory module being accessed by the modem computing system to configure the modem computing subsystem. This would have advantageously provided a memory that could be used to store information to "boot up" or initialize the subsystems, (Nguyen, col. 4, lines 6-9). This also would have advantageously provided a power saving system by preserving the use of the shared memory clock until needed by one of the computing subsystems (Nguyen, col. 1, lines 19-24, and line 49-col. 2, line 9).

16. In considering claim 8, the teachings of Guterman provide a means for the first binary memory image comprising mobile station code sufficient to permit the modem computing subsystem to establish a wireless communication link and monitor a paging channel, (page 1, paragraph 15).

17. In considering claim 9, the teaching's of Guterman provide a means for the modem computing subsystem and the first shared memory to be enabled when the computing subsystem starts to monitor the paging channel, and the modem computing

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subsystem and the first shared memory module are disabled when not engaged in wireless communications, (page 1, paragraph 15-page 2, paragraph 23).

18. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guterman in view of Nguyen, and further in view of Bays et al. (hereinafter Bays), U.S. Patent 6,965,974.

19. In considering claim 10, although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: a second shared memory.

Nevertheless, multiple shared memories were well known in the art at the time of the present invention. In the background teachings of Bays it is disclosed that it was well known to have multiple shared memories , (col. 2, line 57-col. 3, line 4).

Thus, it would have been obvious to one of ordinary skill in the art to further modify the teachings of Guterman to disclose a second shared memory module, wherein the second shared memory module is independently accessible by the general computing subsystem and the modem computing subsystem, wherein the second shared memory module can be disabled by the general computing subsystem to save power, and wherein a second binary image is loaded in the second shared memory module from the nonvolatile memory by the general computing subsystem. This would have advantageously provided additional memory that could be used store information for the subsystems, (Nguyen, col. 4, lines 6-9; Bays, col. 2, line 57-col. 3, line 4).

20. In considering claim 11, the combined teachings of Guterman Nguyen, and Bays provide a means for the second binary memory image to contain the mobile station modem code sufficient to operate a traffic channel, (Guterman, page 1, paragraph 15; Nguyen, col. 4, lines 6-9; Bays, col. 2, line 57-col. 3, line 4). One of ordinary skill in the art would combine the teachings of Guterman with Nguyen and Bays for reasons previously indicated.

21. In considering claim 12, the combined teachings of Guterman Nguyen, and Bays provide a means for the second shared memory module to be activated when the modem computing subsystem operates a traffic channel, and the second memory module to be deactivated to save power when ceasing to operate the traffic channel, (Guterman, page 1, paragraph 15-page 2, paragraph 23, Nguyen, col. 4, lines 6-9; Bays, col. 2, line 57-col. 3, line 4). One of ordinary skill in the art would combine the teachings of Guterman with Nguyen and Bays for reasons previously indicated.

### ***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Magro et al. U.S. Patent 6,832,327 – discloses providing a system clock to components in a processor-based system (see abstract).

Wang et al. U.S. Patent 6,546,496 – discloses enabling clocks on an as needed basis (see abstract).

**23. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**24.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is 571-272-3940. The examiner can normally be reached on Mon-Fri (8am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HP/  
11/15/07

  
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